

What is claimed is:

1. A cap and vessel positioning system comprising:
a locking arm having an opening with a locking device; and
a threaded vessel having a vessel flange, the threaded vessel securable in the locking device.
2. The positioning system of claim 1 wherein the locking device is a pair of partitions or a locking pocket.
3. The positioning system of claim 1 further comprising a threaded cap having a cap flange, the threaded cap securable to the threaded vessel.
4. The positioning system of claim 1 further comprising a cap rotator with a suction cup.
5. The positioning system of claim 4 wherein the cap rotator has blades on opposing sides, further wherein the cap is held between the blades.
6. The positioning system of claim 3, wherein the threaded cap is secured to the threaded vessel when the cap flange and vessel flange are aligned.
7. The positioning system of claim 3, wherein the threaded vessel and threaded cap have multiple disjointed threads.
8. The positioning system of claim 3, wherein the threaded vessel and threaded cap each have four disjointed threads extending about 180 degrees around the

circumference of the threaded vessel, further wherein each thread starts in a location about 90 degrees away from an adjacent thread.

9. The positioning system of claim 3, wherein the threaded cap is secured to the threaded vessel a first time after being rotated in one direction approximately 180 degrees.

10. The positioning system of claim 1, wherein the locking arm further comprises a plurality of vessel openings and a matching plurality of locking ports, each of the vessel openings sized to accommodate a vessel, and each of the locking ports capable of retaining the vessel in the locking arm.

11. The positioning system of claim 10, wherein the locking arm further comprises a plurality of locking pockets, each locking pocket of the plurality of locking pockets surrounding one of the plurality of vessel openings.

12. The positioning system of claim 11, wherein each locking pocket is substantially square.

13. The positioning system of claim 10, wherein each locking port comprises a locking opening and an O-ring surrounding the locking opening, and wherein the locking opening is connected to a vacuum line for drawing a partial vacuum in the locking opening.

14. The positioning system of claim 13, wherein the vacuum line is situated internal to the locking arm.

15. A cap and vessel positioning system comprising:
a locking arm having an opening with a locking device;

a threaded vessel having a vessel flange, the threaded vessel securable in the locking device; and

a threaded cap having a cap flange, the threaded cap securable to the threaded vessel.

16. The positioning system of claim 15, wherein the locking arm further comprises a plurality of vessel openings and a matching plurality of locking ports, each of the vessel openings sized to accommodate a vessel, and each of the locking ports capable of retaining the vessel in the locking arm.

17. A cap and vessel positioning system, comprising:

a locking arm having an opening with a locking device;

a threaded vessel sized to fit the opening, the vessel having a vessel flange and securable in the locking device;

a threaded cap having a cap flange, the threaded cap securable to the threaded vessel, wherein the locking device is a pair of partitions or a locking pocket.

18. The positioning system of claim 17, wherein the locking arm further comprises a plurality of vessel openings and a matching plurality of locking ports, each of the vessel openings sized to accommodate a vessel, and each of the locking ports capable of retaining the vessel in the locking arm.